Amendments to the Claims:

Please cancel claims 1-32 without prejudice or disclaimer and add new claims 33-59 as follows.

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

33. (New) A radiation multi-chip module, comprising:

a first electronic circuit device coupled to a top of a substrate;

a second electronic circuit device coupled to a bottom of the substrate;

an ionizing radiation shielding top coupled to the top of the substrate;

an ionizing radiation shielding bottom coupled to the bottom of the substrate;

a hermetically sealing top coupled to the top of the substrate; and

a hermetically sealing bottom coupled to the bottom of the substrate;

wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom are adapted to shield the first electronic device and the second electronic device from ionizing radiation.

34. (New) The radiation multi-chip module according to Claim 33, further comprising:

a plurality of conductors electrically attaching the first electronic circuit device and the second electronic device to a plurality of interconnects at the substrate.

35. (New) The radiation multi-chip module according to Claim 33, wherein the first electronic circuit device and the second electronic circuit device each receive an amount of ionizing radiation less than a respective total dose tolerance.

36. (New) The radiation multi-chip module according to Claim 33, further comprising:

a first sidewall attached to the top of the substrate and attached to the hermetically sealing top to hermetically seal the first electronic circuit device; and

a second sidewall attached to the bottom of the substrate and attached to the hermetically sealing bottom to hermetically seal the second electronic circuit device.

37. (New) The radiation multi-chip module according to Claim 33, further comprising:

a first die attach slug coupled to the top of the substrate; and

a second die attach slug coupled to the bottom of the substrate;

wherein the first electronic circuit device is attached to the first die attach slug; and

wherein the second electronic circuit device is attached to the second die attach slug.

38. (New) The radiation multi-chip module according to Claim 37, wherein the first die attach slug shields the first electronic circuit device from ionizing radiation and the second die attach slug shields the second electronic circuit device from ionizing radiation.

39. (New) The radiation multi-chip module according to Claim 37, wherein the first die attach slug and the second die attach slug comprise a high Z material.

40. (New) The radiation multi-chip module according to Claim 33, wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom comprise a high Z material.

41. (New) The radiation multi-chip module according to Claim 33, wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom comprise a combination of high Z material and low Z material.

42. (New) A radiation multi-chip module, comprising:

an ionizing radiation shielding top attached to a top side wall, said top side wall attached to a top of a substrate;

an ionizing radiation shielding bottom attached to a bottom side wall, said bottom side wall attached to a bottom of the substrate;

a hermetically sealing top attached to the top side wall to form a hermetically sealed chamber on the top of the substrate; and

a hermetically sealing bottom attached to the bottom side wall to form a hermetically sealed chamber on the bottom of the substrate.

43. (New) The radiation multi-chip module according to Claim 42, further comprising:

a plurality of electronic circuit devices coupled to the substrate; and

a plurality of conductors electrically attaching the plurality of electronic circuit devices to a plurality of interconnects at the substrate.

44. (New) The radiation multi-chip module according to Claim 43, further comprising a plurality of die attach slugs attached to the plurality of electronic circuit devices, wherein the die attach slugs are attached to the substrate.

45. (New) The radiation multi-chip module according to Claim 44, wherein the plurality of die attach slugs comprise an ionizing radiation shielding material.

46. (New) The radiation multi-chip module according to Claim 44, wherein the plurality of die attach slugs comprise a high Z material.

47. (New) The radiation multi-chip module according to Claim 42, wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom comprise a high Z material.

48. (New) The radiation multi-chip module according to Claim 42, wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom comprise a combination of high Z material and low Z material.

49. (New) A radiation multi-chip module, comprising:

a first electronic circuit device coupled to a top of a substrate;

a second electronic circuit device coupled to a bottom of the substrate;

an ionizing radiation shielding top coupled to the top of the substrate;

an ionizing radiation shielding bottom coupled to the bottom of the substrate;

a top shielding ring coupled to the top of the substrate; and

a bottom shielding ring coupled to the bottom of the substrate;

wherein the top shielding ring and the bottom shielding ring are adapted to shield the first electronic circuit device and the second electronic circuit device from side-angle ionizing radiation.

50. (New) The radiation multi-chip module according to Claim 49, further comprising:

a plurality of conductors electrically attaching the first electronic circuit device and the second electronic device to a plurality of interconnects at the substrate.

51. (New) The radiation multi-chip module according to Claim 49, further comprising:

wherein the first electronic circuit device and the second electronic circuit device each receive an amount of ionizing radiation less than a respective total dose tolerance.

52. (New) The radiation multi-chip module according to Claim 49, further comprising:

a first sidewall attached to the top of the substrate and attached to the ionizing radiation shielding top; and

a second sidewall attached to the bottom of the substrate and attached to the ionizing radiation shielding bottom.

53. (New) The radiation multi-chip module according to Claim 49, further comprising:

a first die attach slug coupled to the top of the substrate; and

a second die attach slug coupled to the bottom of the substrate;

wherein the first electronic circuit device is attached to the first die attach slug; and

wherein the second electronic circuit device is attached to the second die attach slug.

54. (New) The radiation multi-chip module according to Claim 53, wherein the first die attach slug shields the first electronic circuit device from ionizing radiation and the second die attach slug shields the second electronic circuit device from ionizing radiation.

55. (New) The radiation multi-chip module according to Claim 53, wherein the first die attach slug and the second die attach slug comprise a high Z material.

56. (New) The radiation multi-chip module according to Claim 49, wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom comprise a high Z material.

57. (New) The radiation multi-chip module according to Claim 49, wherein the ionizing radiation shielding top and the ionizing radiation shielding bottom comprise a combination of high Z material and low Z material.

58. (New) The radiation multi-chip module according to Claim 49, wherein the top shielding ring and the bottom shielding ring comprise a high Z material.

59. (New) The radiation multi-chip module according to Claim 49, wherein the top shielding ring and the bottom shielding ring comprise a combination of high Z material and low Z material.